

**Notice of Allowability**

Application No.

10/071,223

Applicant(s)

STORM ET AL.

Examiner

David J Steadman

Art Unit

1652

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--**

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☐ This communication is responsive to \_\_\_\_.
2. ☒ The allowed claim(s) is/are 9-12, 16 and 17.
3. ☒ The drawings filed on 11 February 2002 are accepted by the Examiner.
4. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some\* c) ☐ None of the:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

\* Certified copies not received: \_\_\_\_.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

**THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.**

5. ☒ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
6. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
- (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
- 1) ☐ hereto or 2) ☐ to Paper No./Mail Date \_\_\_\_.
- (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date \_\_\_\_.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
7. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

**Attachment(s)**

1. ☐ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☒ Information Disclosure Statements (PTO-1449 or PTO/SB/08), Paper No./Mail Date 09/11/02
4. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material
5. ☐ Notice of Informal Patent Application (PTO-152)
6. ☐ Interview Summary (PTO-413), Paper No./Mail Date \_\_\_\_.
7. ☒ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other \_\_\_\_.

## **DETAILED ACTION**

### ***Status of the Application***

- [1] Claims 9-12 and 16-17 are pending in the application.
- [2] Applicants' cancellation of claims 1-8 and addition of claims 9-17 in a preliminary amendment filed September 11, 2002 is acknowledged.
- [3] Applicants' amendments to the specification in a transmittal letter filed February 11, 2002 and a preliminary amendment filed September 11, 2002 are acknowledged.
- [4] Receipt of an information disclosure statement (IDS), filed September 11, 2002, is acknowledged. All cited references have been considered by the examiner and a copy of the IDS is attached to the instant Notice of Allowability.

### ***Oath/Declaration***

- [5] The oath or declaration is defective. A new oath or declaration in compliance with 37 CFR 1.67(a) identifying this application by application number and filing date is required. See MPEP §§ 602.01 and 602.02. The oath or declaration is defective because: 1) it does not identify the city and either state or foreign country of residence of each inventor (the residence information may be provided on either on an application data sheet or supplemental oath or declaration) and 2) non-initialed and/or non-dated alterations have been made to the oath or declaration. See 37 CFR 1.52(c).
- [6] Applicant is now required to submit a substitute declaration or oath to correct the deficiencies set forth above. The substitute oath or declaration must be filed within the THREE MONTH shortened statutory period set for reply in the "Notice of Allowability"

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(PTO-37). Extensions of time may NOT be obtained under the provisions of 37 CFR

1.136. Failure to timely file the substitute declaration (or oath) will result in

**ABANDONMENT** of the application. The transmittal letter accompanying the

declaration (or oath) should indicate the date of the "Notice of Allowance" (PTOL-85)

and the application number in the upper right hand corner.

***Examiner's Amendment to the Specification***

[7] The "Brief Description of the Drawings" section of the specification lists Figures 3(A-B). However, the actual drawings list Figures 3A-3D. Also, the amino acid sequence of human type IX adenylyl cyclase listed in Figures 3A-3D is not identified by a sequence identifier. In accordance with MPEP 1302.04, an informal examiner's amendment (listed in item [9] below) has been made to the description of Figure 3 to replace "Figures 3(A-B)" with "Figures 3(A-D)" and to identify the amino acid sequence of human type IX adenylyl cyclase as SEQ ID NO:2.

[8] Applicants' claim for domestic priority under 35 U.S.C. 121 in the specification (as amended in the transmittal letter filed February 11, 2002) is acknowledged. In accordance with MPEP 1302.04, an informal examiner's amendment (listed in item [9] below) has been made to indicate that application 09/473,717 has issued as a US patent and application 08/886,44 has been converted into provisional application 60/098,559.

[9] Amend the specification at page 1, line 1 as follows:

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--This application is a divisional of US non-provisional application 09/473,717, filed December 29, 1999, now US Patent 6,372,475, which is a continuation of International application PCT/US98/13541, filed July 01, 1998, which designated the US and claims priority to US non-provisional application 08/886,440, filed July 01, 1997, which has been converted to US provisional application 60/098,559, filed July 01, 1997, now abandoned, all of which are incorporated herewith in their entirety.--

**[10]** Amend the specification at page 5, lines 8-10 as follows:

--Figure 3(A-D) is a comparison of the amino acid sequence of the hAC9 polypeptide (SEQ ID NO:2) with the amino acid sequence of the murine type IX adenylyl cyclase (Premont *et al.*, *supra*) (SEQ ID NO:3).--

***Examiner's Amendment to the Claims***

**[11]** An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee. Authorization for this examiner's amendment was given in a telephone interview with Mr. Michael S. Tuscan on April 20, 2004.

**[12]** Amend the claims as follows (a clean set of amended claims is listed):

Claim 9. (amended) An isolated protein comprising SEQ ID NO:2.

Claim 10. (amended) An isolated protein encoded by a nucleic acid

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molecule comprising nucleotides 17-3898 of SEQ ID NO:1.

- Claim 11. (amended) An isolated protein encoded by a nucleic acid molecule comprising SEQ ID NO:1.
- Claim 12. (amended) An isolated protein of claim 9, further comprising a hexa-histidine tag.
- Claim 13. (canceled).
- Claim 14. (canceled).
- Claim 15. (canceled).
- Claim 16. (original) An isolated protein of claim 9 consisting of SEQ ID NO:2.
- Claim 17. (amended) A composition comprising the protein of claim 9 and a diluent.

### ***Reasons for Allowance***

[13] The following is an Examiner's statement of reasons for allowance. The examiner has found no teaching or suggestion in the prior art directed to a polypeptide comprising SEQ ID NO:2 (encoded by nucleotides 17-3898 of SEQ ID NO:1). Therefore, claims 9-12 and 16-17, directed to a polypeptide comprising SEQ ID NO:2, a composition thereof, and a polypeptide consisting of SEQ ID NO:2, are allowable over the prior art of record.

[14] Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to David Steadman, whose telephone number is (571) 272-0942. The Examiner can normally be reached Monday-Friday from 7:30 am to 4:00 pm. If attempts to reach the Examiner by telephone are unsuccessful, the Examiner's supervisor, Ponnathapura Achutamurthy, can be reached at (571) 272-0928. Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Art Unit receptionist whose telephone number is (703) 308-0196.

David J. Steadman, Ph.D.

Patent Examiner

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*AS* 04-28-04